

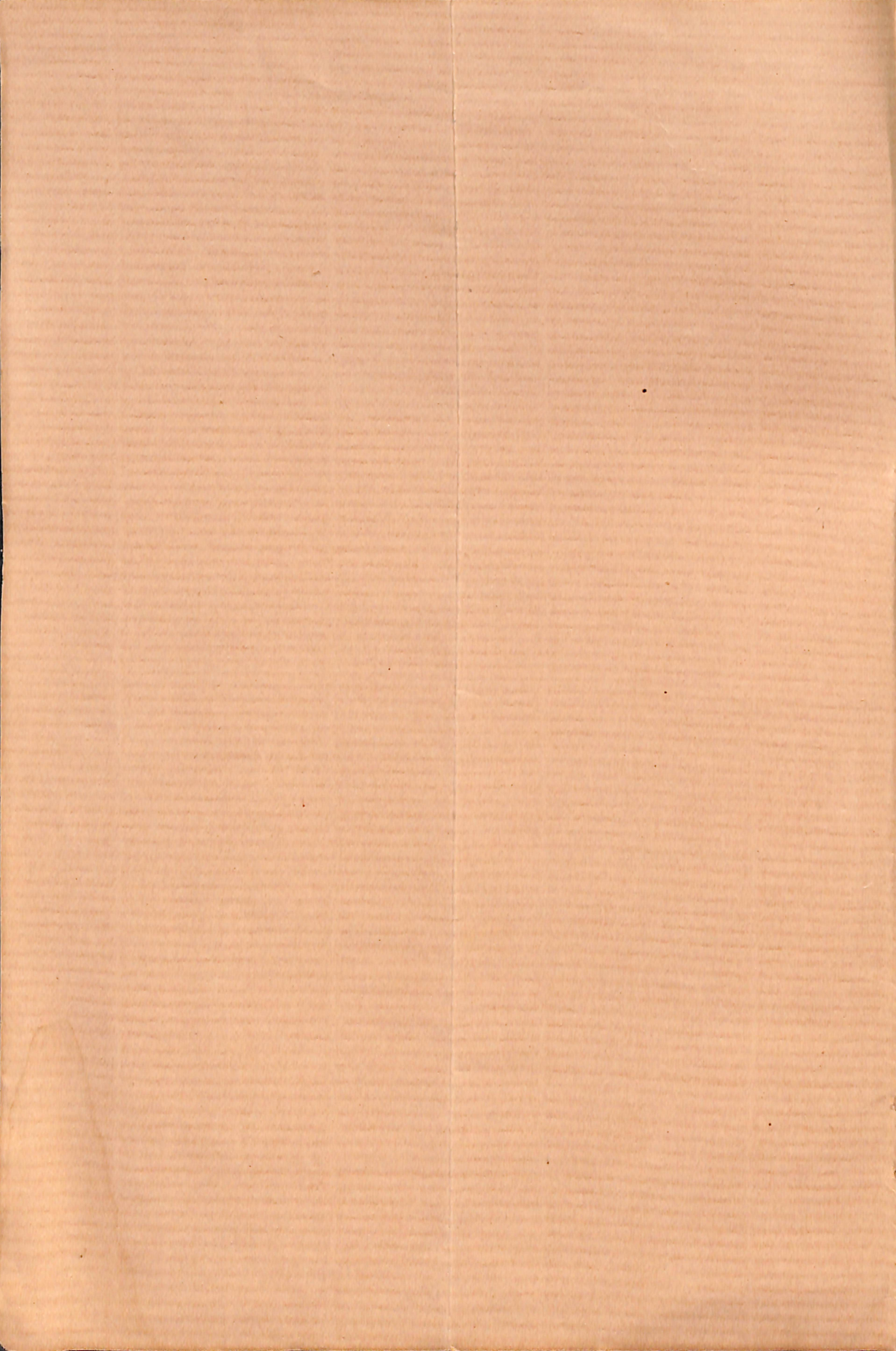
June, 1888.



BRANCH

No. 54 East 23rd Street, New York City.
J. N. HINMAN, Manager.

OFFICES: 103 & 105 La Salle Street, Chicago, Ill.
CLAYTON JOHNSON, Manager.



ADVANTAGES

— OF —

Northrop's Patent Cap-Seam Roofing.

PATENTED OCTOBER 20TH, 1874.

We claim superiority in the following features possessed by this roofing over any other iron roofing now in use:

1st. It is made from the best box annealed, smooth finish iron of fine texture, free from scale or warp. Painted on both sides with a paint of our own that will not scale or peel off.

2d. Each sheet is fastened to the roof boards at both side edges alike, and also at the end locks and entirely independent of the adjoining sheet. No other roofing is so securely fastened.

3d. No holes are punched in any of the sheets for any purpose whatever, and no nails, screws or rivets are used through any of the sheets; therefore each sheet is perfectly free to expand or contract with every change of temperature without affecting the seams or fastenings. It can therefore be made tight, and will remain tight.

4th. IT IS A REMOVABLE ROOF. By simply straightening up the long cleat and slipping off the caps, any single sheet can be taken out; or the whole roof can be taken off and used again without loss or waste of material, and without the use of any special tools. This is a great advantage in case of needed repairs to a building damaged by fire or explosion, or where a good, tight roof is wanted for temporary purposes. *No other roofing possesses this feature.*

5th. Our Patent Cap-Seam Roofing can be used on roofs broken by hips and valleys, chimneys, sky-lights or dormer windows, with greater facility and less waste than any other material not excepting tin, slate or shingles.

6th. Our caps are cut short, across the sheets, and fold with the grain of the iron. They are therefore the strongest caps made, and can be relied upon to make tighter, stronger seams than any cap folded upon the edge of the sheets, or cut lengthwise of the sheets, and therefore folded across the grain of the iron. These short caps are held to place by a wide, strong, metal cleat; this cleat being first nailed to the roof-boarding, comes up between the upright edges of the sheets, and clinches over them, thus holding the sheets firmly to the roof-boards. The cap is then put on, covering the joint, and the ends of the cleat are bent up and over the caps; the caps are then closed up with mallet and seamer, or with strong tongs, making strong, tight seams, without rivet, tongue or wire put through, or hole punched in for any purpose; thus leaving the sheets free to contract or expand with any change of temperature, without affecting the seams or drawing upon the fastenings. This long cleat, made to answer the purpose of holding in place both the sheets and the caps, is the essential patented feature of our roofing; and as some manufacturers do not understand this, *we wish to warn both them and those who use iron roofing* against this feature of our patent.

7th. No extra and expensive tools are needed to put on our roofing; a hammer, mallet and shears being all that is needed.

When iron roofing has not proved satisfactory, it can almost always be traced to a neglect of some reasonable requirements. Much of the iron roofing in market is made from a common iron, with very porous texture, and the surface frequently painted with inferior oil or paint, having in it a large proportion of benzine dryers.

If our roofing is properly applied, protected on the upper side with our paint, and when exposed to steam or vapors, with felting underneath, it will be found the most durable and satisfactory roofing now before the public.

HOW PREPARED.

In deciding which of the many iron roofings will suit best, persons should take into consideration that it comes in the shape most convenient for putting on, and is the easiest to apply. We manufacture our roofing—

In Sheets, having both side edges and the end locks turned all ready to apply. Packed three squares (300 feet) in a box with caps and wide double cleats for fastenings. An end folder is always sent free with the first order, with which to turn end locks on sheets cut in fitting or finishing out the courses. Tools necessary for putting on this style are hammer, mallet and hand shears. Sheets are usually formed of 28x96 iron, and lay $26\frac{1}{2}$ x93. Six sheets to the square with caps, cleats and nails.

In Rolls.—In this the sheets are put together in strips of fifty feet in length, more or less, (customers can have them made any length desired,) with cross seams locked and grooved. These strips are packed in rolls, with heavy paper wrappings, with caps and cleats. A pair of roofing tongs turning one inch, with which to turn up the side edges of the strips, will be sent when ordered.

All tools will be billed with the roofing, and may be returned by freight within sixty days, when the amount paid for them will be refunded. We always send an end folder free with the first order of any style of roofing, for turning the locks on sheets that are cut in fitting or filling out corners.

Customers will bear in mind that there is a saving in labor and also in expense of boxing in the manufacture of roofing sent in rolls; it can therefore be sold at less price. However, all roofing sent in rolls must have the side edges turned upon the roof, which is hard to do when the roof is steep.

DURABILITY OF IRON ROOFING.

Practical tests and comparisons of the different materials used for roofing have demonstrated that sheet iron of good quality and suitable thickness, *if properly put on and taken care of*, is the best for all general purposes, where protection from the elements—"water, fire, lightning,"—combined with economy and durability, are carefully considered. Iron roofing is not a new thing. Common sheet iron, painted, has been in use in Germany and the Canadas for the past 100 years and more; while it is not difficult to point to iron roofs in our own country that have been in use thirty, forty, and even sixty years, that are still serving their purpose. We have them of our own construction that have been on for twenty-five years, that we know have never been repaired beyond occasional painting, and are still good, tight, sound roofs.

Nearly every one is acquainted to some extent with tin roofs, and yet tin plate is nothing more or less than sheet iron covered with tin. This coating, on the roofing tin in use at this day, being so light and thin that it affords little or no protection to the iron. It is but two to four per cent in weight of the plate. It must therefore be painted the same as iron to keep it from rusting. That we are sustained in this assertion we refer to the columns of the *Metal Worker*, a paper published in New York, in the interest of the tin and stove business, and the acknowledged authority on all matters of tin plate and metals.

The value of tin roofing depends upon the quality and weight of the sheet iron of which it is made. I-C roofing tin, of which by far the greater part of tin roofing is made, weighs $\frac{5.4}{100}$ of a pound to a square foot; I-X roofing tin weighs $\frac{6.0}{100}$ of a pound to a square foot; while the weight of our lightest iron roofing sheet, No. 26, Birmingham gauge, is $\frac{7.2}{100}$ to the square foot, (although we recommend the No. 25 gauge, $\frac{8.0}{100}$ to the square foot, as being the most economical for general uses.)

The weight of metal, the size of our sheets, (28 in. x 96 in.,) the elastic character of our seams, the fine quality of iron used, the durable character of our paint, and the ease and facility with which our roofing can be applied, by even ordinary workmen, are all in favor of our PATENT CAP-SEAM SHEET IRON ROOFING. After an experience of over thirty years, as a practical tinner, in the use of both tin and iron for roofing, we do not hesitate to guarantee our Patent Cap-Seam Roofing as superior to any roofing material now in use.

It will be seen from the instructions and cuts shown in our instructions, that if our roofing is properly applied there can be no possibility of its leaking in any ordinary case. We have

put it on roofs of every form, from those cut up with hips, valleys, dormers, mansards, etc., to those with only $\frac{1}{2}$ inch to the foot fall. We do not approve of building very flat roofs, and believe that with *less than 1 inch* fall to the foot, no roofing material will wear well and remain tight without considerable repairing. If the roof *must be of less pitch* than that, we think our iron the best that can be used; a tin roof would need frequent repairing of bursted seams; a gravel roof an annual coat of tar, etc.; our iron roofing will only need painting a little oftener than on a steeper roof.

IRON ROOFING FIRE-PROOF.

There is no other roofing that can be compared with this as a protection from fire. It has many times saved buildings from outside fires, and if the frame under it burns it adds nothing to the flames. A shingle roof frequently catches fire from the merest spark. A slate roof cracks to pieces when approached by heat. A gravel roof, when once started, makes an unquenchable flame.

Where iron roofing, siding, etc., is used in place of wood we can guarantee the saving in insurance premiums will pay the difference in cost within three to five years. The difference in cost of insurance is frequently very great, particularly in towns with poor fire departments, or where wooden buildings are numerous.

PROPER ROOF BOARDING.

With any roofing it always pays in the end to have good sheeting under it. We always prefer a sheeting laid as close as possible. The roofing may and often is laid on slats three inches wide, placed six or eight inches apart between centres. This would be very good were it not for the necessity of going upon a roof sometimes, or that moisture would condense on the under side. The sheeting is usually the same as for shingles on buildings ceiled inside.

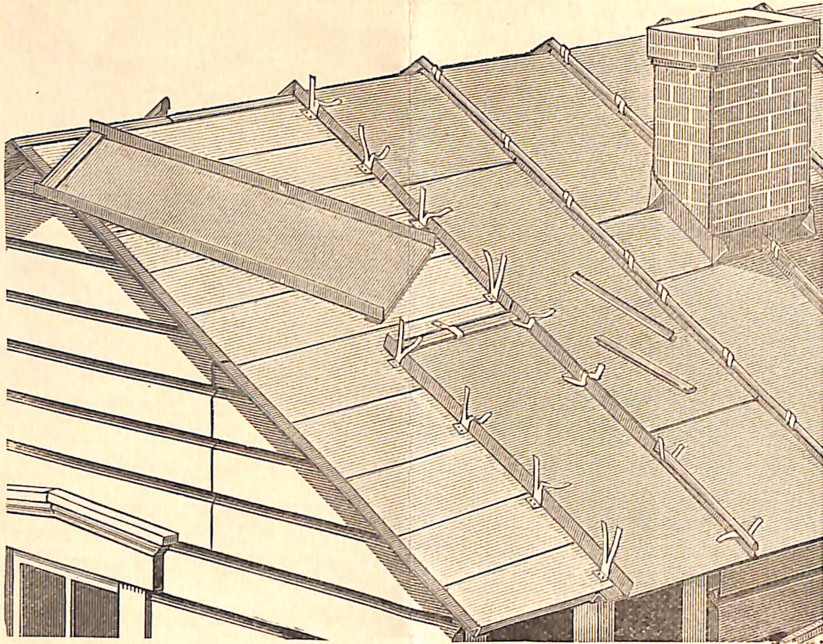
USE OF FELT LINING UNDER ROOFING.

In manufacturing buildings of almost any kind, not ceiled under the roof, the steam, vapors, smoke, or moisture from the breath of workmen, condensing on the cold surface of metal, keep it moist, and cause it to rust. To prevent this, we have used felting or dry building paper successfully, as it, being a non-conductor, prevents the condensation. A tight sheeting is often sufficient, but, in many cases, the felting should be used. *A tarred felting should never be used, tar being injurious to iron.* It is cheaper and often better to put on the sheeting with openings two to four inches apart, and put felt over it, than to lay the sheeting close and use no felting at all. We can always furnish the proper kind and width. We have taken off some roofs of corrugated iron, on frame-work, which, from condensation of moisture, were a nuisance; and by putting on roof-boards, lining paper, and our Cap-Seam Roofing, made them entirely satisfactory.

INSTRUCTIONS

FOR PUTTING ON NORTHPROP'S PATENT SHEET IRON ROOFING.

If our cuts are carefully examined, any good workman, with the following instructions, should do good work on any roof, however difficult. Obtain a mallet, hammer and snips, and unbox the folder, which is sent for turning end seams when it is necessary to cut the sheets to make the proper length. Handle the sheets at side edges only, not at the ends, and avoid bending them. Lay a sheet on one corner of roof, with lower edge projecting 1 inch or more, so as to turn down and be nailed, and having the outside edge standing even with edge of roof, or, if against a fire wall, hammer it out flat and turn up 4 inches. Cleat the upper end lock of the sheet by hooking on a cleat, drawing it tight and nailing it just above the lock. Then hook on another sheet, cleat the other end and mallet the cross-seam down smooth. If on a flat roof, the seams should be painted with thick paint before joining. (Note: if over a shingle roof, end cleats cannot be used, as an iron bar, $\frac{3}{4}$ x3x30, has to be slipped under the lock on which to make the seam.) Continue as above till upper end of roof is reached, when, if there is a brick fire wall, turn up the end of sheet 4 inches; if a hip, trim it off on the angle of hip one inch above the line, which inch is turned up for a standing seam. If a gable roof, turn both ends under, hook one end into sheet below, draw tight and notch into the standing edge on line of gable, and bend balance of sheet over the gable. Then commence at the opposite eave and



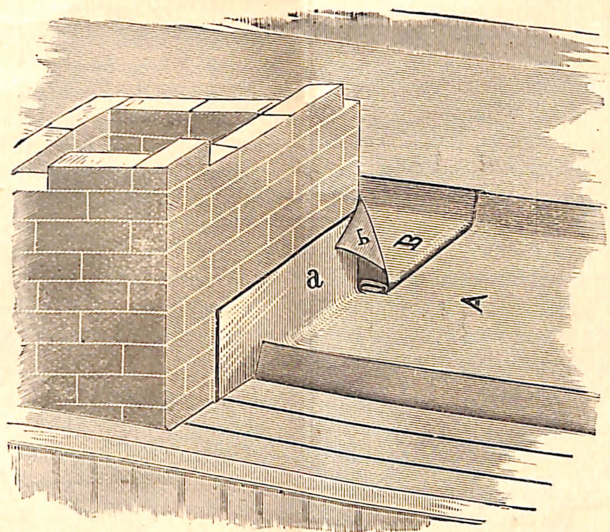
lay up to the gable sheets, the last sheet being cut to make the right length. The piece left should be used to commence the next course, thus breaking joints.

Cleating.—When a course is laid, nail the cleats with two nails close beside the standing seam, commencing at the eave and putting them 24 inches apart between centres, measuring from edge to eave up. As the cleats are put on press the roofing down firmly and turn one-half of the cleat over the edge tightly, leaving the other half to hold down edge of next course. Continue laying the courses, pressing them close to each other, keeping the standing seam in a line and straightening any edges bent in handling. If a hip roof, when one side is roofed, turn a standing seam along the hip and cleat it same as other seams.

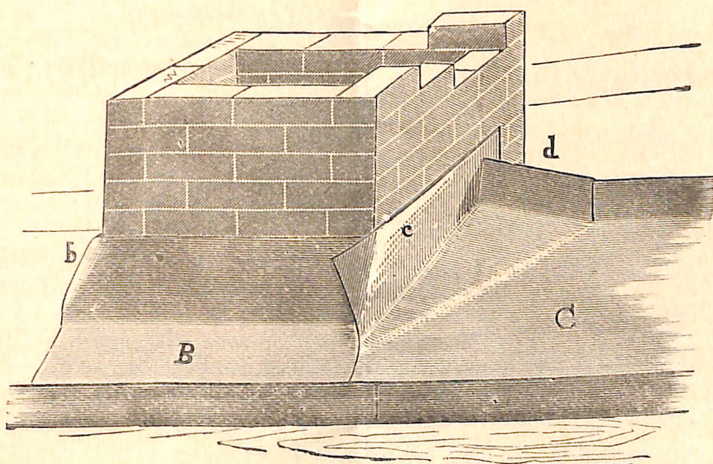
Capping.—Put on the caps by commencing at the eave, pressing them closely down and turning the ends of cleats back over them. The caps should lap $\frac{1}{2}$ inch, or so that a cleat will hold down the lower end of each one. At the gable, cut half way into each side of the cap and bend to fit angle of gable. If a flat roof, paint the inside of caps with a narrow brush before applying. After they are on, take a mallet and a tinner's seaming tool, or block of hard wood, and close the caps up tight so that no wind or rain can drive in. At the gable ends, if the edge is left standing, secure the roofing by hooking a piece cut 3 inches or more wide, having the edge turned over, on to the standing edge, and nailing to the fascia or edge of sheeting.

Cementing and Painting.—The painting should be done as soon as possible after the roof is on, with boiled linseed oil and the finest metallic paint—red lead or Venetian red. Before painting, close up all corners on ridges, valleys, gutters, etc., and around any chimney or opening, with a cement made by mixing the paint thick like putty. The place should be painted first, then cemented and painted again, and the cement will never come off.

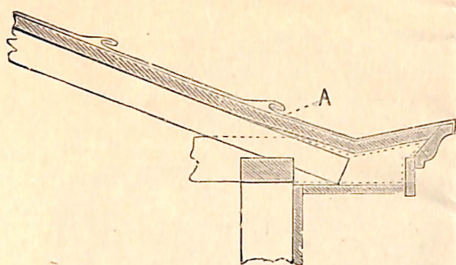
Chimneys and Skylights.—As in other methods of iron roofing, the fitting around chimney, etc., is usually done in such a hap-hazard way that only a continual application of cement and paint will keep them tight, we herewith illustrate and describe our method, which, during many year's work, has always proved successful. Bring the courses from below, (see cut A,) up to lower side of chimney, and turn up three inches, (a). The part extending beyond the corner should be trimmed down to one inch, and that turned over to form a lock. Then cut a piece (B) wide enough to turn against chimney three inches, and extend to next standing



seam, and long enough to hook on to sheet (A) and extend two inches above the chimney. Cut down on the side turned up even with upper part of chimney, and flatten out the notch, turn a lock on the end, cleat to its place, and hammer down the lower seam. Then cut and bend lower end of next sheet, (C,) letting the part (c) extend two inches beyond chimney, locking the sheet into the piece below. Notch part way into the point (d) six inches above the chimney, and bend up a little on a line from (d) to end of (c,) so as to lead the water round the corner. The other side of chimney is fixed the same way. The projecting points (b b) are turned over corner, and the corner filled with cement. Then the whole is counter-flashed by sawing into the mortar, and wedging in pieces cut to fit. When the chimney or sky-light is so wide that two or more seams butt against it, at the upper side put a sheet lengthwise long enough to reach from the standing seam on one side of chimney to that on the other. Turn one side of the sheet against chimney, make corner seams as described before and turn over the standing edge on upper side of sheet, so as to seam the sheets above into it.



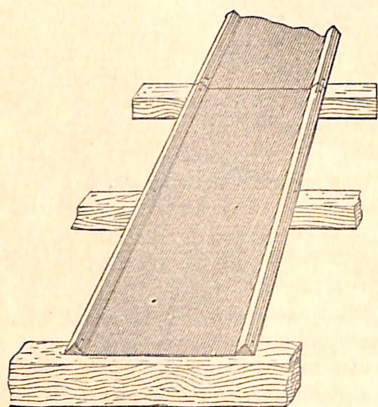
Valleys in Roofing.—First join sheets together to make desired length, bend over the side edges to make a lock seam and bend along the centre on a straight edge to fit angle of valley; then slide to its place and cleat down the side edges. The roofing joining it is trimmed on a line with the valley seam—the edge turned under, and a seam made on the valley sheets similar to the cross seams. In laying hips and valleys there need be no waste, as when sheets are cut diagonally the piece left can be used on next course by reversing it.



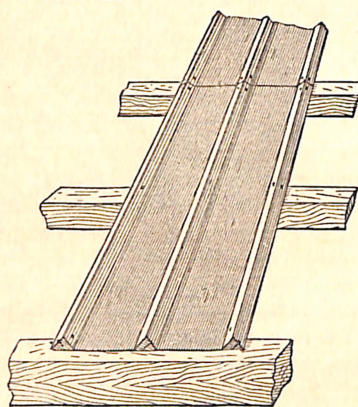
Gutters may be made of iron or any other sheet metal preferred, and the edge towards the roofing should always extend above the level of the outer edge, so that water will not back over the seam, and no nails should be put through the upper edge, but it should be secured with cleats. The gutter is usually made in a roll, which is formed and bent to fit the wood work; then the upper edge is turned over 1 inch, cleated by a

hook cleat, and the ends of the roofing hooked on, and the seam hammered flat. When painted black iron is used, a sheet of 20x28 tin is seamed in where the outlet is to be, so that it may be soldered in. When gutter is ordered, we make it in rolls of any desired length. We recommend Calamined Iron as the best material for gutter.

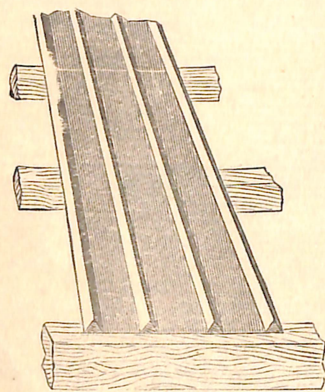
CRIMPED IRON ROOFING.



SINGLE CRIMPED.



DOUBLE CRIMPED.



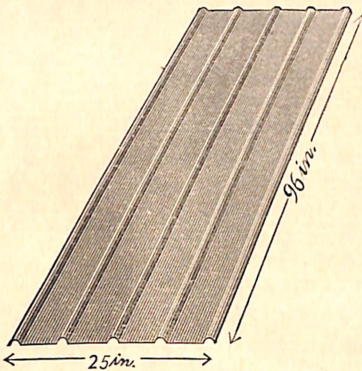
TRIPLE CRIMPED.

This roofing is rapidly taking the place of corrugated iron wherever it has been introduced and its superiority becomes known. It is cheaper and more durable; more pleasing in appearance; less liable to draw the nailings; and more easily fitted around chimneys or places where cutting or bending is necessary. It is used mostly for putting on purlines, ribs or lath, iron roof frames, or any roofs where sheeting can not well be used. To render it stiff and self-supporting, two, three or four crimps are made in a sheet. Triangular strips of wood, cut to fit the crimp, are first nailed on to the purlines or lath, at suitable distances apart, and the iron is nailed on to these strips. The weight of iron necessary, and the number of crimps in a sheet, must be determined by the distance between the lath or purlines. On a roof of moderate pitch this style of roofing usually gives good satisfaction. As the seams in this style of roofing,

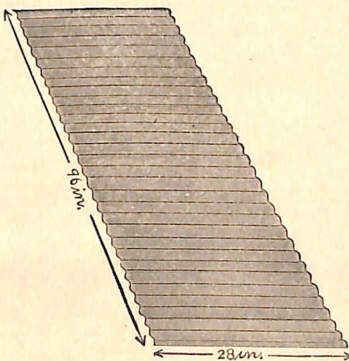
as well as in corrugated iron roofing, are of necessity lapped seams, fastened by nailing *through the iron*, we do not feel the confidence in its use that we do in our capped seam roofing where a strictly tight roof is necessary, and therefore do not recommend its use, except as above mentioned. We also prepare this roofing with clips attached, suitable for attaching to iron roof frames without the use of the triangular wooden strips. Besides these "Angular" Crimped Irons, above described, we make the Oval Crimped Iron and fine Corrugated Iron for siding or ceiling.

CRIMPED IRON SIDING.

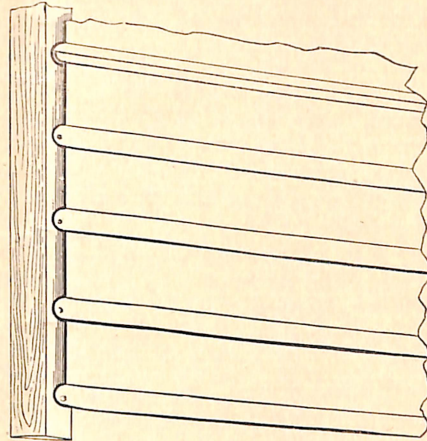
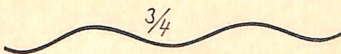
Our crimped Irons, when used as siding, can be nailed direct to studding, (the crimps running horizontally,) or can be put on either way over plain sheeting boards. They are especially adapted for use on stores, warehouses, factories, shops, mills and elevators, where brick is not available, or where from lack of suitable foundation or the inclemency of the season, or the great cost, brick is not advisable. The V Crimped Siding is similar to the Crimped Roofing, except that the Crimp is a smaller size. There are four angular crimps lengthwise in a sheet 28x96, so that it lays 25 in. wide. We make a similar kind having but three crimps, one on each end and one between, laying 25½ in. wide.



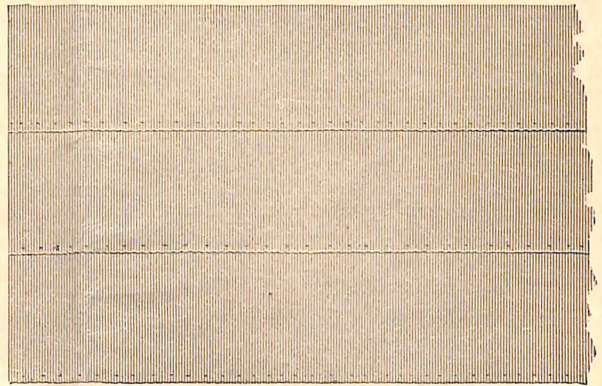
SHEET OF OVAL CRIMPED SIDING.



SHEET OF FINE CORRUGATED IRON.



THE OVAL CRIMPED SIDING has four or five semi-circular crimps in a sheet of 28x96 iron, a cut of which is shown, with full size section of the crimp. That with four crimps lays 25½ in. wide. That with five crimps 25 in. wide, from center to center of outside crimps.



The FINE CORRUGATED SIDING, a cut of which is shown with full size section of the corrugation, make a cheap and handsome siding, much superior to plain flat iron. It should be put on rough boards, or on three inch strips, nailed to studding horizontally, 13½ inches center to center, so as to be nailed at the lower edge and in the center. A paper lining is a useful addition to any iron siding.

REFERENCES—IRON ROOFING.

- | | |
|---|--|
| <p>E. Tenn., Va. & Ga. R. R. Shops, Selma, Ala.
 H. Zeckendorf & Co., Tucson, Arizona.
 H. E. Stimmel, Yreka, Cal.
 W. M. Baggs & Son, Stockton, Cal.
 Hull & Rogers, Danbury, Ct.
 Danbury & Norwalk R. R. Co., Danbury, Ct.
 Eaton, Cole & Burnam, Bridgeport, Ct.
 Bridgeport Carpet Manufactory, Bridgeport, Ct.
 J. H. Hubbard, Fulton, Del.
 Geo. S. Grier, Milford, "
 Hagden & Foot, Kimball, Dak.
 Cook & Libby, St. Augustine, Fla.
 J. H. Krouse, Tampa, Fla.
 Geo. W. Averett, Quitman, Ga.
 H. L. Boone, Valdesta, Ga.
 J. R. Brumby & Bros., Furn. Mfrs., Marietta, Ga.
 James Bell, Mills, etc., Ullin, Ills.
 Marseilles Mfg. Co., Implements, Marseilles, Ill.
 Victor Beale, Mills, Cobden, Ills.
 Crane & Smith, Farrington, "
 Don Onstott, Du Quoin, "
 H. M. Harris, " "
 A. Seelig, Mantie, "
 John Grabner, Warsaw, Ind.
 J. H. Defree & Son, Goshen, Ind.
 F. V. B. Minnich, " "
 Tanner, Sullivan & Co., Indianapolis, Ind.
 Smith & Nobes, Flora, Ind.
 A. T. Jackson & Son, Kewana, Ind.
 Boehmler & Thompson, Cedar Falls, Ia.
 S. B. Herrick, Grinnell, Ia.
 Gilbert, Hedge & Co., Burlington, Ia.
 E. P. Shipherd, Osage, Ia.
 Smith & Co., Farmersville, La.
 Wm. Tarr & Co., Lexington, Ky.
 G. G. White, Paris, Ky.
 Day & Huff, Frankfort, Ky.
 Hadley Town Hall, Hadley, Mass.
 Williams Mfg. Co., Northampton, Mass.
 L. B. Cobb, Cummington, Mass.
 J. E. Bull, Belair, Md.
 A. Retzell, Weston Md.
 Chas. Ralloff, New Ulm, Minn.
 Thos. Pool, Hickory, Md.
 A. W. Robinson, Sharptown, Md.
 P. Hein & Co., Cumberland, Md.
 J. A. Manns, Clarksville, Mo.
 Upton Mfg. Co., Battle Creek, Mich.
 Nichols, Shepard & Co. " "
 Lyman Pettee, " "
 J. P. Horton, Mason, "
 John Brett, Port Austin, "</p> | <p>Escanaba Water Works, Escanaba, Mich.
 G. Luisdorf, Mankato, Minn.
 C. P. Wilcox, Detroit, "
 L. Haberle, New Ulm, "
 John Kelly, Canton, Miss.
 N. C. Orrick, " "
 Carroll Smith, " "
 R. H. Hoffman, " "
 C. Olson, " "
 Warren Vinland, Franklin, N. J.
 Somerset Mfg. Co., Raritan, "
 Kenyon Bros., " "
 Kenedy Bros., Dryden, N. Y.
 H. S. Kirtland, Afton, "
 Joseph David, Henderson, N. Y.
 L. W. Dutcher, Hartwick Seminary, N. Y.
 Henry Tripp, De Ruyter, "
 Reardon & Ennis, Troy, "
 Richardson, Beebe & Co., East Aurora, "
 W. H. Chaphe, Agt. F. B. Coal Co., Elmira, N. Y.
 Frank Gould, Middletown, "
 Storrs & Chatfield, Oswego, "
 Curtis Mfg. Co., Albion, "
 Catholic Church, Albion, "
 S. & J. Coursey, Geneva, "
 A. F. Chapman & Co., Watkins, "
 D. S. Peet & Co., Laurens, "
 C. Conklin, Catskill, "
 Candor Iron Works, Candor, "
 John T. Noyes Co., Buffalo, "
 D. H. Patterson, Salamanca, "
 A. D. Jones, Hardware, Springville, "
 Rev. W. P. Rulison, Mechanicsville, "
 W. J. Ward, Sidney, "
 B. T. Cook, Franklin, "
 H. L. Jones, Wellsville, "
 Benj. Greenbank, Enfield, N. H.
 R. Beal & Son, Oxfordville, N. H.
 W. H. Foster, Thomasville, N. C.
 H. C. Vestal, Marleys Mills, N. C.
 W. Steers, Hadenville, Ohio.
 S. J. Hooper, East Springfield, Ohio.
 Church Bros., Marysville, "
 E. B. Kauke, Bryan, "
 Alex. Wilson, Bealsville, "
 Tiech & Bro., Wooster, "
 C. F. Fox, West Liberty, "
 May & Fieberger, Akron, "
 Farrington & Slauson, Piqua, "
 Jas. Reed & Sons, Warren, "
 Warren Gas Co., Warren, "
 Humphries & Raymond, Springfield, Ohio.</p> |
|---|--|

REFERENCES—IRON ROOFING.

Hon. Herman Ely, Elyria,	Ohio.	J. B. Fisher, Corry,	Pa.
F. A. Dubois, Shelby,	"	J. M. Miller & Co., Coal Valley,	"
T. French, Jeweler,	"	G. G. Rupley, Mercersburg,	"
Hon. Geo. C. Washburn, Elyria,	"	J. F. Bower, Turbotville,	"
O. P. Clark & Sons, Van Wert,	"	A. D. Dye & Co., Towanda,	"
Mitchell, Pollock & Co., Jackson,	"	Thompson, Epping & Carpenter, Pittsburgh,	"
McClure & Craighead, Wooster,	"	Godfrey & Clark, Paper Mfrs.,	"
Van Allen & Co., Northumberland, Pa.	"	Cavett & McKnight, Founders,	"
M. T. Cotter, Shousetown,	"	Pitts. & Birm. Street Car Stables,	"
Economite Society, Economy,	"	McCullough, Dalzell & Co.,	"
Jacob Henrici, Economy,	"	W. H. Brown's Sons,	"
Hall, Kall & Co., St. Mary's,	"	Sixth Pres. Church, Franklin street,	"
Waldron & Sprout, Muncy,	"	Wm. Renton, Machinist,	"
W. G. Snell, West Pittston,	"	S. K. Miller,	"
S. G. Purvis & Co., Butler,	"	S. W. Black,	"
Penna. Pulp & Paper Co., Lock Haven, Pa.	"	Mundorf & Co., Planing Mill,	"
Kistler Bros., Lock Haven,	"	Bryce Bros., Glass Manufacturers,	"
J. S. Gaston, Gastonville,	"	John Burford, Copper Works,	"
D. P. Ray, Tyrone,	"	A. Watson, Coal,	"
The Wycoff Pipe Co., Williamsport,	"	W. J. Snodgrass & Co., Coal Operators,	"
James Bennett, Emlenton,	"	Henry Warner, Supt. Allegheny Co. Work House,	"
Windsor Glass Co., Homestead,	"	Claremont, Pa.	"
Thos. S. Mann & Co., Mill Hall,	"	Alliance Milling Co., Denton, Texas.	"
Robt. Mann & Son,	"	A. W. Risien & Co., Dublin, Tenn.	"
John Minnich, Bedford,	"	Ben. A. Key, Hardware, Denton, Texas.	"
F. B. Coal Co., W. H. Chaph, Agent, Williams-	"	J. R. Simril, Chester, S. C.	"
port, Pa.	"	J. L. Hill & Son. Enoree, S. C.	"
August Lieber, Tinner, Hawley,	Pa.	S. B. Ezell, Spartanburg, S. C.	"
Morrison, Bare & Cass, Tyrone,	"	Warren Estebrooks, St. Johnsbury, Vt.	"
Phoeniz Planing Mill Co., Bellefontaine,	"	J. C. Taylor, West Concord, Vt.	"
The Methodist Church, Uniontown,	"	B. G. Howe, Hotel, St. Johnsbury, Vt.	"
R. B. Cox, Connellsville,	"	Orcutt Falls Co., White River Junction, Vt.	"
West Pa. Insane Asylum, Dixmont,	"	A. A. Grubert, Stanton, Va.	"
West Pa. Reform School, Morganza,	"	J. P. H. Mason, Accotinct, Va.	"
Bedford Springs Hotel, Bedford,	"	A. Galpin's Sons, Hardware, Appleton, Wis.	"
County Poor House, Somerset,	"	Cook, Case & Sorensen, Green Bay, Wis.	"
F. B. Granger,	"	Geo. Challonor's Sons, Omro, Wis.	"
Frick & Co., Manufacturers, Waynesboro,	"	A. Buffatt & Son, Millers, Knoxville, Tenn.	"
Black & Germer, Erie,	"	R. L. Adams, Lewisburg, Tenn.	"
G. T. Hamilton, Tinnors, Indiana,	"	Knoxville St. R. R. Co., Knoxville, Tenn.	"
W. E. Smith, Port Allegany,	"	J. G. Reeves & Son, Greenville, Tenn.	"
A. Bronson, Belvernon,	"	L. Haney, Knoxville, Tenn.	"
Bailey, Wilson & Co., Camden,	"	V. O. Hays, Lewisburg, Tenn.	"

P A T E N T

PANELED SHEET IRON CEILING.

PERMANENT, DURABLE, FIRE-PROOF, ORNAMENTAL.

Will not Stain, Crack or Fall Off like Plaster.

Will not Shrink or Burn like Wood.

Can be Put On as Easily Over Old Broken Plaster as on New Work.

What was only an experiment a few years ago has grown into a large and prosperous business, demonstrating that our Ceilings are meeting the wants and tastes of the people wherever they have been introduced. We offer a ceiling that is fresh and new in design. Not imitations of old styles and methods. Not imitations of anything. Ceilings that are **PERMANENT**; that do not crack and fall off at every jar, or stain or soak off at every little leak that occurs in the roof or water pipe. Something that does not have to be papered over every year, layer after layer, to keep it in place and make it present a respectable appearance. A ceiling that will not burn; that, in connection with an **ASBESTOS** lining felt, is practically **FIRE-PROOF**, and yet ornamental and pleasing in appearance, not an offence. A ceiling that is not a sham. Real Panels, real Mouldings, and Rosettes; not painted ones. Made of iron. Not crumbling plaster. Not inflammable wood. But **IMPERISHABLE IRON**.

Suitable for every kind of building. Just what is wanted in every store and office; in warehouses and factories; in asylums and hospitals; in seminaries, colleges and school houses, in dwelling houses, in churches, halls and opera houses, where not only permanency and beauty in design and color are wanted, but, also, perfect **ACOUSTIC PROPERTIES**. In this respect our Fluted Panel Ceiling is unsurpassed.

The increasing demand for our Iron Ceilings has induced us to enlarge our manufacturing facilities, and to add to our styles a number of new and attractive features and improvements, making them more fire-proof, more easy of application, and better adapted to the various styles of buildings for which they are wanted.

Sheet Iron Ceiling, made in such a manner as to be easily applied by ordinary mechanics, supplies a much needed want in our building materials in places where plastered ceilings are unsuitable on account of their liability to become detached by jarring of machinery, or any cause that produces jarring or concussion upon the floor above; or where wood is unsuitable on account of its shrinking, letting dirt and dust sift through. But over and above these, however, is its intrinsic value as a **FIRE-PROOF PROTECTION** against the spread of fire in a building

SEND FOR ILLUSTRATED CIRCULARS OF CEILINGS.

Digitized by:



ASSOCIATION
FOR
PRESERVATION
TECHNOLOGY,
INTERNATIONAL
www.apti.org
Australasia Chapter

**BUILDING
TECHNOLOGY
HERITAGE
LIBRARY**

<https://archive.org/details/buildingtechnologyheritagelibrary>

from the collection of:

Miles Lewis, Melbourne

funding provided by:

the Vera Moore Foundation, Australia

